

1 WHAT IS CLAIMED IS:

2 1. A vehicle drive assist system, comprising:

3 frontal circumstances recognizing means for
4 recognizing a solid object in front of an own vehicle based on
5 images taken by imaging means;

6 oncoming lane crossing intension detecting means for
7 detecting an intension of said own vehicle to cross an oncoming
8 lane;

9 oncoming waiting vehicle detecting means for detecting
10 an oncoming vehicle waiting in front of said own vehicle on said
11 oncoming lane;

12 oncoming straight vehicle detecting area establishing
13 means for establishing a detecting area in the vicinity of said
14 oncoming vehicle waiting; and

15 oncoming straight vehicle detecting means for
16 detecting an oncoming vehicle traveling straight in said detecting
17 area.

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19 2. The vehicle drive assist system according to claim 1,
20 wherein said oncoming lane crossing intension detecting means
21 detect an intension of said own vehicle to cross said oncoming
22 lane when said own vehicle travels at a low speed and when a turn
23 signal switch is turned on.

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25 3. The vehicle drive assist system according to claim 1,

1 wherein said oncoming waiting vehicle detecting means recognize
2 an oncoming vehicle as an oncoming vehicle waiting when said
3 oncoming vehicle exists within a predetermined distance in front
4 of said own vehicle and when said oncoming vehicle travels at
5 a low speed toward said own vehicle and when said oncoming vehicle
6 is detected successively on several frames of said images.

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8 4. The vehicle drive assist system according to claim 1,
9 wherein said oncoming straight vehicle detecting means recognize
10 an oncoming vehicle as an oncoming vehicle traveling straight
11 when a new solid object appears in said detecting area and when
12 only a portion on an oncoming lane side of said new solid object
13 is detected.

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15 5. The vehicle drive assist system according to claim 1,
16 wherein when another solid object always exists in said detecting
17 area, a new detecting area is established on the oncoming lane
18 side of said other solid object and said detecting area is
19 substituted with said new detecting area.

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21 6. The vehicle drive assist system according to claim 1,
22 further comprising:

23 warning means for warning a driver of said own vehicle
24 when said oncoming vehicle traveling straight is detected.